ABSTRACT OF DISCLOSURE

A supporting base of sufficient length and small diameter for supporting a gas separation membrane comprising a sintered material is provided. This supporting base has a high gas permeability, and allows omission of operation such as welding. This supporting base is produced by continuously extruding raw metal powder materials a and b corresponding to each constituent layer of the bilayer structure in the order starting from the raw metal powder material a constituting the inner layer to the raw metal powder material b constituting the outer layer such that the layer newly extruded surrounds the preceding layer to thereby produce a green cylinder of bilayer structure having an outer diameter of 15 mm or less; cutting the resulting green cylinder to a length of 100 mm or more; and sintering the green cylinder to thereby produce the supporting base for gas separation membrane. This has also enabled to provide a supporting base for a gas separation membrane comprising a sintered metal, which has a high gas permeability and which enables omission of operation such as welding is provided.